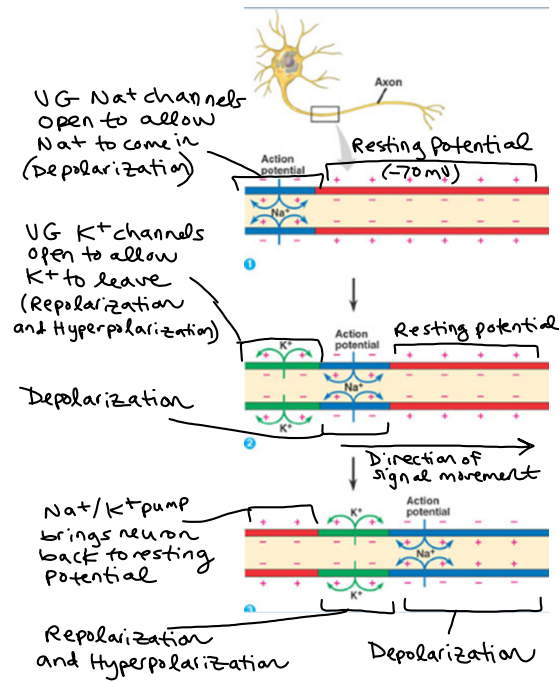
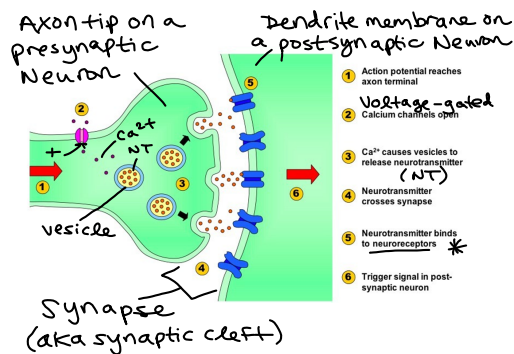


An Action Potential Traveling Down the Axon of a Neuron

* Note: We consider the depolarization step to be the actual action potential. During this step, a "wave" of \oplus charge enters the cell as Na^+ comes in through the VG Na^+ channels



Sending a Signal From one Neuron to another across a Synapse



+ = positive charge from depolarization in the axon tip causes VG Ca^{2+} channels to open and allow Ca^{2+} to come into the cell

* = the "neuroreceptors" are typically ligand-gated Na^+ channels (LG) that open in response to the binding of an NT (which is the ligand).

These LG Na^+ channels allow Na^+ to come in to bring the cell to threshold. The LG Na^+ channels are different from the VG Na^+ channels, which are involved in depolarization.

These LG Na^+ channels are often the "stimulus" that we included in our "Action potential in a Neuron" image, which causes \oplus charge to enter the cell to bring it to threshold (-55mV).